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Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT

DISTRICT OF ARIZONA

Andrew Ackert, an individual, by and through his conservator, Fiduciary Solutions, LLC, Plaintiffs, vs. **General Motors LLC**, a Delaware limited liability company; **San Tan Hyundai, Inc.**, an Arizona Corporation. Defendant.	No. ____________________ **COMPLAINT** (Jury trial demanded)

Plaintiff Andrew Ackert, through his conservator, submits his Complaint against Defendant General Motors LLC as follows:

Parties

1. Plaintiff Andrew Ackert is an individual and resident of Pinal County, Arizona.

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2. He achieved the age of majority in June of 2020.

3. Due to the permanent nature of the injuries he sustained in the collision underlying this matter, Andrew's financial affairs are managed by a conservator, Fiduciary Solutions, LLC ("Conservator").

4. Defendant General Motors LLC ("General Motors") is a foreign limited liability company organized and formed under the laws of Delaware, doing business in Arizona.

5. General Motors LLC is, upon information and belief, a second-tier subsidiary of General Motors Company, which in turn is the successor entity to General Motors Corporation. As used in this complaint, "General Motors" refers to General Motors LLC and all successor corporations and entities.

6. General Motors is and has been engaged in the design, manufacture, and sale of automobiles through a nationwide network of subsidiaries and dealerships doing business in the State of Arizona.

7. General Motors LLC's principal place of business is the State of Michigan.

8. According to General Motors LLC's Corporate Disclosure Statement filed in other matters before this Court:

> General Motors LLC is a Delaware limited liability company with its principal place of business in Michigan. General Motors LLC is 100% owned by General Motors Holdings LLC. General Motors Holdings LLC is a Delaware limited liability company with its principal place of business in Michigan. General Motors Holdings LLC is 100% owned by General Motors Company. General Motors Company is a Delaware corporation with its principal place of business in Michigan.

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9. The members/owners of Defendant General Motors LLC are citizens and residents of Michigan and/or Delaware.

10. None of the members or owners of Defendant General Motors LLC are citizens or residents of the State of Arizona.

Jurisdiction and Venue

11. This Court has jurisdiction of the parties and subject matter.

12. As set forth above, the parties are diverse.

13. The amount in controversy exceeds $75,000.00.

14. Thus, this Court has jurisdiction pursuant to 28 U.S.C. § 1332.

15. Venue is proper in this Court.

Factual Background

1. The Vehicle

16. This is a products liability matter stemming in part from General Motors' failure to install forward collision warning, automatic emergency braking, adaptive cruise control and/or driver monitoring in a vehicle, which failure is a proximate cause of an automobile crash that occurred on March 27, 2012.

17. The vehicle at issue in this case is a 2009 Chevrolet Malibu, Vehicle Identification Number 1G1ZG57B49F150784 (the "Vehicle").

18. General Motors designed, chose the feature content of, manufactured and distributed this Vehicle.

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19. General Motors did not equip the Vehicle with either (1) a low-risk deployment airbag, or (2) any type of forward collision warning or other advanced driver assist forward collision avoidance feature.

2. Low Risk Deployment Passenger Airbag System

20. When front passenger airbags were first introduced in vehicles rapidly inflating airbags began causing serious harm to small people positioned in the path of the inflating airbag.

21. A countermeasure to the danger of inflating passenger airbags causing serious or fatal injury to children occupying passenger airbag equipped front passenger seats is a system that suppresses front passenger airbag deployment when a small person occupies the front passenger seat. Suppression of front passenger airbags at front passenger positions occupied by children prevents some airbag induced injuries to some children.

22. A "low risk deployment passenger airbag system" ("Low Risk Airbag System") is an airbag system specifically designed for the front passenger side seating position of a vehicle.

23. Low Risk Airbag Systems reduce the risk of serious and fatal injuries caused by airbag inflation to small size occupants and improve the restraint of all occupants in moderate and high severity frontal crashes.

24. FMVSS compliant Low Risk Airbag Systems reduce the risk of serious and fatal injuries to frontal passenger seat occupying children and small women in moderate and high severity frontal collisions.

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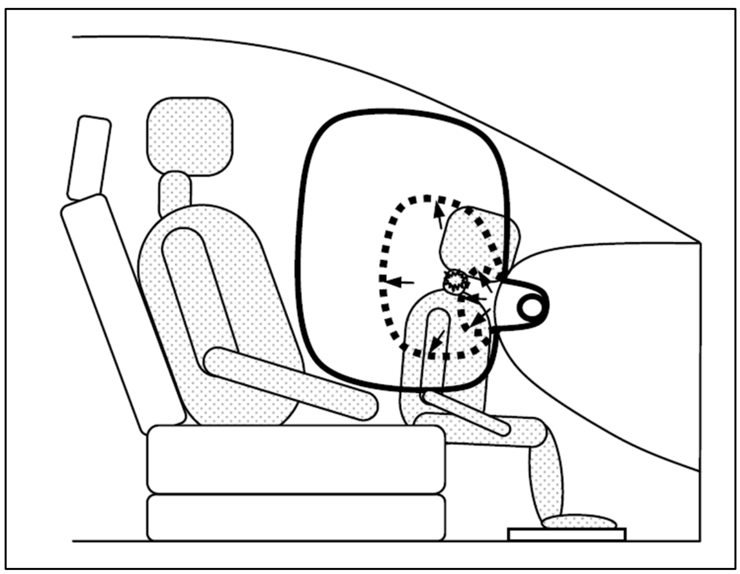
25. Some Low Risk Airbag Systems have two separate airbag modules mounted on the instrument panel in a way that allows reduction in the inflator outputs of both airbag inflations while providing restraint to the passenger's chest by a lower mounted module and to the passenger's head by a high mounted second module.

26. This diagram shows the effect of a conventional mid-mount airbag system. For smaller adults and children who were "out of position," this system results in significant upward and punch out force, which often resulted in serious injuries to the out-of-position individual, while otherwise providing support for an in-position person.



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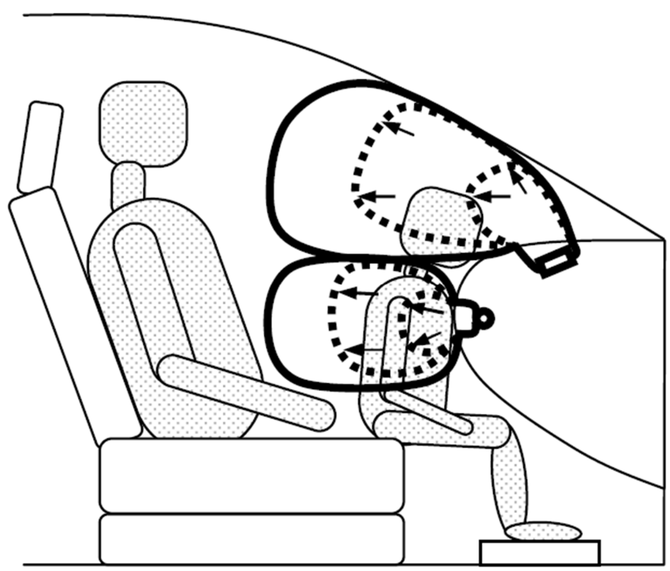
27. Airbag inflation risks to small people positioned in the path of inflating airbags are reduced by a "low risk dual airbag system," as diagramed below.



28. Low Risk Dual Airbag Systems of the general design show in the diagram immediately above this paragraph were both technologically and financially feasible for model year 2009 passenger vehicles in the United States.

29. Besides the system referenced in the last paragraph above, there were multiple other Low Risk Front Passenger Airbag Deployment designs that met all Federal Motor Vehicle Safety Standards requirements for Model Year 2009 that were financially and technologically feasible for use in the 2009 Chevrolet Malibu.

3. Forward Collision Avoidance Systems

30. Rear-end collisions are the most common form of automobile collision or accident, generally accounting for approximately one third of automobile accidents in the

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United States. *NTSB Special Investigation Report, "Vehicle- And Infrastructure Based Technology for Prevention of Rear-End Collisions (May 2001)*, at 1.

31. According to a 2015 study by the National Transportation Safety Administration (NTSB), rear-end collisions account for "almost half of all two-vehicle crashes." *2015 NTSB Report*, at. 6.

32. The primary cause of rear-end collisions is driver distraction. *Id*.

33. "87 percent of rear-end crashes involved some degree of driver inattention." *Id*.

34. The earliest iteration of a Forward Collision Avoidance System was forward collision warning ("FCW"), initially developed by the early to mid-1990s.

35. FCW is a technology that supplies an automobile driver with an alert when a danger, such as a stopped or slow-moving vehicle, is detected ahead by the FCW system.

36. Some commercial trucks had Forward Collision Warning systems installed in them for use on roadways in the United States by 1999.

37. By the late 1990s, Eaton VORAD, a supplier of FCW components in the 1990s, was actively marketing its FCW system to truck companies throughout the United States, with "over 2 billion miles of over-the-road experience" by the summer of 1999. *2001 NTSB Special Investigation Report,* at 22.

38. Since at least 1996, federal agencies have urged carmakers to adopt FCW technology.

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39. In 1995, following a five-fatality event investigation, the NTSB encouraged the prompt adoption of FCW, issuing numerous recommendations to advance it. *2001 NTSB Special Investigator Report*, at 5-6 (summarizing 1995 recommendations).

40. In 1995, General Motors Corporation, along with Ford Motor Company, formed the Crash Avoidance Metrics Partnership (CAMP) to "accelerate the implementation of crash avoidance countermeasures to improve traffic safety…." *National Highway Traffic Safety Administration*, Third Annual Report of the Crash Avoidance Metrics Partnership, April 2003 - March 2004 (February 2005), at 3.

41. One CAMP project was the "Forward Collision Warning Requirements Project," a joint project between Ford, General Motors, and NHTSA.

42. The "Forward Collision Warning Requirements Project" was completed in 2004.

43. NHTSA partnered with General Motors to conduct two-phase Field Operational Tests, addressing both the effectiveness of forward collision warning and consumer acceptance of the technology. *See* "Automotive Collision Avoidance System Field Operational Test: Final Program Report," NHTSA (May 2005).

44. In 1996, the National Highway Traffic Safety Administration (NHTSA)—a regulatory agency within the Department of Transportation—conducted its first cost/benefit study of crash avoidance systems, including FCW, noting that such a study was appropriate at the time because of "their technical maturity and the availability of system prototypes." "Preliminary Assessment of Crash Avoidance Systems Benefits," *NHTSA Benefits Working Group* (October 1996).

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45. In 1996 NHTSA concluded that Forward Collision Warning systems should be installed if the cost of the Forward Collision Warning system was anything less than $1,500. "Preliminary Assessment of Crash Avoidance Systems Benefits," *NHTSA Benefits Working Group* (October 1996).

46. In 2001, the NTSB issued a report regarding forward collision avoidance technologies. ,

47. In 2001 the NTSB urged both governmental agencies and auto/truck manufacturers to implement Forward Collision Warning systems as rapidly as possible. *2001 NTSB Special Investigation Report*.

48. The 2001 NTSB Special Investigation Report, referred to in the last 2 paragraphs above, references a fatal truck/car collision near Moriarty, New Mexico, in January of 1999. *Id*. at 7-8.

49. The NTSB prepared two simulations of the fatal truck/car collision near Moriarty, New Mexico, the first showing what actually happened in the collision (which can be viewed here), and the second showing how the truck driver could have easily avoided the collision with FCW (this animation viewable here). *2001 NTSB Special Investigation Report,* at 27.

50. In the 2001 NTSB Special Investigation Report, the NTSB made a specific plea to automakers saying:

> Develop and implement, in cooperation with the National Highway Traffic Safety Administration, the Federal Highway Administration, the Intelligent Transportation Society of America, and the truck and motorcoach manufacturers, a program to inform the public and

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> commercial drivers on the benefits, use, and effectiveness of collision warning systems and adaptive cruise control.

2001 NTSB Special Investigation Report, at 39.

51. General Motors responded to the NTSB's request in an email to NTSB dated October 3, 2001, stating in part:

> GM is promoting the application of adaptive cruise control and forward collision warning systems through its advanced technology development process and its product implementation plans…. GM concurs with the NTSB recommendation regarding development of education materials for these technologies. As ACC and FCW are introduced into the stream of commerce, they will be accompanied by the appropriate system-specific descriptive materials. GM has prepared and distributed such materials for other avoidance technologies…..

General Motors 10/3/2001 Email to NTSB.

In March 2006 NHTSA provided automakers with another comprehensive risk/benefit study of forward collision avoidance technologies, demonstrating their benefits. "Evaluation of an Automotive Rear-End Collision Avoidance System," National Highway Transportation Administration (March 2006).

52. In a final rule announced on July 11, 2008, NHTSA announced that NCAP ratings and evaluation would include forward collision warning on vehicles. *See id.* NHTSA explained:

> Technologies such as ESC, *forward collision warning (FCW)*, lane departure warning (LDW) and crash mitigation systems have been developed and are being offered in the current vehicle fleet. Some of these technologies have shown effectiveness in reducing the number of relevant crashes in Department of Transportation (DOT)-sponsored field operational tests…. [¶]*Based on technical maturity, fleet availability, and available effectiveness data, NHTSA identified three technologies that fit these criteria. These technologies are ESC, LDW, and FCW.*

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73 FED.REG. 40017 (footnote omitted; italics added).

53. The forward collision warning (FCW) system designs referenced in the quote by NHTSA in the last paragraph above were not significantly improved in their driver assist collision avoidance characteristics compared to the forward collision warning design, that used Algorithm C, in the 2002 Le Sabres that were used in the March 2003 through November 2004 ACAS FOT testing. Reference "Evaluation of an Automotive Rear-End Collision Avoidance System," National Highway Transportation Administration (March 2006) for a description of the performance of the FCW systems used in the 2002 Le Sabre test vehicles.

54. By July 11, 2008, NHTSA had concluded that forward collision warning was "technically mature" and a "proven crash avoidance technology."

55. Automatic emergency braking ("AEB") is an automated follow-up to forward collision warning.

56. AEB has two related sub-technologies. The first is dynamic brake support (DBS), which activates if a driver brakes before an impending collision but does not brake hard enough to prevent the collision. DBS automatically supplements the driver's braking in an effort to avoid the crash.

57. A second AEB technology is crash imminent braking (CIB). If a driver does not brake at all with a potential impending crash CIB automatically applies the vehicle's brakes to slow or stop the car, avoiding the crash or reducing its severity.

58. Honda installed AEB in a production automobile by May of 2003.

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59. By the mid 2000's, some new vehicles sold in the United States were equipped with AEB.

60. By model year 2005 some new vehicles sold in the United States used computer-controlled braking to slow vehicles in response to the computer system's identification of vehicles traveling at a slower speed than the vehicle equipped with computer-controlled braking.

61. Between March 2003 and November 2004 General Motors participated in a "cooperative agreement" with NHTSA that involved an extensive field operational test of 10 GM-built 2002 Buick Le Sabres equipped with an Automotive Collision Avoidance System that included Adaptive Cruise Control and Forward Collision Warning. See "Evaluation of an Automotive Rear-End Collision Avoidance System," National Highway Transportation Administration (March 2006).

62. A goal of the "cooperative agreement" between NHTSA and GM was to advance the development of Forward Collision Warning for use in production vehicles.

63. NHTSA conducted a cooperative agreement relating to Intelligent Cruise Control that ended in 1998.

64. Intelligent Cruise Control referenced in the last paragraph above is similar to Adaptive Cruise Control except speed control is achieved via throttle modulation and downshift in Intelligent Cruise Control while Adaptive Cruise Control uses automatic braking.

65. General Motors and NHTSA sponsored an Automotive Collision Avoidance System Field Operations (ACAS) Testing on 10 vehicles from March 2003 to November

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2004 that was conducted by UMTRI (University of Michigan Transportation Research Institute). See "Evaluation of an Automotive Rear-End Collision Avoidance System," National Highway Transportation Administration (March 2006).

66. The ACAS system used in the Field Operations Tests run from March 2003 to November 2004 consisted of Adaptive Cruise Control and Forward Collision Warning systems supported by a combination of sensors with forward-looking radar, forward-looking camera, differential global positioning system (DGPS) with map matching, and a yaw-rate sensor.

67. Table 1-3 to the Evaluation of an Automotive Rear-End Collision Avoidance System, published March of 2006, provides a list of the OEM vehicle sensors, switches, and controls used in the FCW and ACC used in that study.

68. The radar in the ACAS system installed in the 2002 Le Sabres for the FOT program measures range, range-rate, and azimuth angle to the maximum of 15 targets from 1 to 150 meters (3 to 492 feet) with a sampling frequency of 10 Hz. *Id*. at 1-3.

69. The maximum horizontal field of view of the radar in the ACAS system installed in the 2002 Le Sabres used for the ACAS FOT program is 15 degrees with an azimuth angle accuracy of 0.5 degrees, azimuth discrimination of 2 degrees and the vertical beam width of 4.1 degrees. *Id*.

70. The ACAS FOT 2002 Le Sabre FCW and ACC systems used GPS/map and forward-looking camera systems to determine the range geometry ahead of the ACAS vehicle from 15 to 75 meters, 49 to 246 feet. *Id*.

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71. The forward-looking camera systems in the ACAS vehicles are used in the Forward Collision Warning system for camera lane tracking, shorter-range details such as host vehicle heading and lateral position within the lane and the local curvature. *Id*.

72. The 2002 Le Sabres used in the ACAS FOT from March 2003 to November 2004 presented visual information to the driver by means of a color head-up display which projects an image on the windshield, which subtends visual angle of 1.5 degree vertical and 3.0 degrees horizontal. *Id*. at 1-4.

73. The 2002 Le Sabres used in the ACAS FOT from March 2003 to November 2004 have an FCW function that provides visual cautionary alerts when following within a driver-adjustable headway time, when following very closely (tailgating), or when approaching a vehicle too rapidly (closing). *Id*. at 1-4.

74. The 2002 Le Sabres used in the ACAS FOT from March 2003 to November 2004 had an FCW system in them that issued a final imminent alert that consisted of both a flashing visual display, heads-up display (HUD), and an auditory warning. *Id*. at 1-4.

75. The cautionary alerts in the ACAS FOT FCW system in the 2002 Le Sabres assisted the 2002 Le Sabre drivers in avoiding or reducing the severity of rear-end crashes when the speed of the host vehicle exceeds 25 mph. *Id*. at 1-4.

76. The warning function in the ACAS FOT FCW system in the 2002 Le Sabres was set to a maximum of 100 meters (328 feet) during the March 2003 to November 2004 testing. *Id*. at 1-4.

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77. The warning function in the ACAS FOT FCW system in the 2002 Le Sabres, within the 100 meters ahead of the host vehicle, is limited on curves with a radius of curvature below 500 meters (1,640 feet). *Id*. at 1-4.

78. The warning function factors in the ACAS FOT FCW system in the 2002 Le Sabres that determine when to issue a crash-imminent alert include range and range rate between the host and lead vehicles, host vehicle speed, lead vehicle acceleration, and host vehicle brake pedal status. *Id*. at 1-4.

79. The warning function in the ACAS FOT FCW system in the 2002 Le Sabres uses the HUD to provide a graded visual display that reflects the degree of the closing gap between the host vehicle and the lead vehicle based on the FCW sensitivity setting chosen by the driver.

80. The Adaptive Cruise Control Function in the ACAS FOT system in the 2002 Le Sabres is described below:

> "The ACC function maintains both a selected cruise speed (speed control mode) when there is no lead vehicle limiting its forward motion, and a selected headway (headway control mode) with a lead vehicle that is traveling slower than the selected cruise speed. The driver is provided with the following ACC control switches:
>
> - Cruise on-off - Set/coast (decrease set speed in 1-mph steps)
> - Resume/accelerate (increase set speed in 1-mph steps)
> - Gap up (1-2 seconds in 0.2-second increments)
> - Gap down (1-2 seconds in 0.2-second increments)

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The headway adjustment control consists of six discrete steps that vary from a minimum of one to a maximum of two seconds. This same control also sets the desired cautionary alert timing of the FCW function when ACC is not engaged. The ACC is engaged by the driver and becomes active when the speed of the host vehicle exceeds 25 mph. At first ACC engagement at the start of the second week, the initial headway setting is set to the maximum value. In headway control mode, the ACC can slow the host vehicle by throttle application or brake to pace a lead vehicle moving slower than the set speed. Once vehicle speed falls below 20 mph, the driver is alerted to take manual control of the vehicle. The ACC does not respond to stopped vehicles ahead – unless the stopped vehicle was initially being tracked as a moving vehicle. The maximum automatic braking capability of the ACC is limited to 0.3g (2.9 m/s2). The brake lights of the 1-6 host vehicle turn on when vehicle brakes are automatically applied. The ACC goes into a standby mode when the brakes are manually applied. The ACC automatically accelerates the host vehicle when the driver manually accelerates above 25 mph and initiates the resume function or the set speed function. The ACC function issues an imminent warning if the maximum automatic braking of 0.3g level is reached. When ACC is engaged, the driver does not receive visual cautionary alerts." See "Evaluation of an Automotive Rear-End Collision Avoidance System", March 2006, p. 1-4 to 1-6.

81. The FCW system that used Algorithm C during the March 2003 through November 2004 ACAS FOT program provides drivers of the ACAS vehicle with alerts and

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advisory displays to assist them in avoiding or reducing the severity of crashes between the front of their vehicle and the rear of a lead moving or stationary vehicle (rear-end crashes).

82. Early results from the ACAS FOT required some modification to the ACAS FOT FCW system to correct for deficiencies in the ACAS system that was being tested because drivers of the initial system expressed an unacceptable level of dissatisfaction with the number of false alarms or "nuisance alerts" produced by the system. *Id*. at 1-5, Table 1-2.

83. To improve the performance of the ACAS system referenced in the last paragraph above the initial algorithm, Algorithm A, was replaced with two subsequent revisions, Algorithm B and Algorithm C. *Id*. at 6-13.

84. Algorithm C was tested using a total of 66 drivers after information was gathered about the performance of Algorithm A and Algorithm B during the March 2003 to November 2004 ACAS FOT testing. *Id*.

85. The 2002 Le Sabre ACAS FOT test vehicles that used Algorithm C were equipped with a system that collected and stored objective numerical data, video clips, and audio recordings and crash imminent alerts issued by the ACAS triggered the recording of 10-Hz 8-second video clips, five seconds prior to the alert to three seconds after, showing the scene forward of the host vehicle and the driver's face. *Id*. at 1-3.

86. In the 2002 Le Sabre ACAS FOT test vehicles the majority of moving in-path target alerts were triggered at vehicle speeds over 35 mph and at these higher speeds, the host vehicle alerts are issued earlier and on more distant objects. *Id.* at 3-8.

87. A total of 28 crash-imminent alerts, in the 2002 Le Sabre ACAS FOT test vehicles, that were due to in-path targets were deemed "true" alerts to a potential impending rear-end collision by the independent evaluator. *Id.* at 3-18.

88. Driver reaction time is defined as the time between the time of in-path target alert onset and the time of response initiation. Reaction time averaged about 0.55 seconds per driver to in-path target alerts during the ACAS-Enabled test period, with a standard deviation of 0.38 seconds (standard error = 0.05 seconds and number of subjects in this analysis = 60). *Id*. at 3-20.

89. Brake reaction time averaged about 0.57 seconds per driver to in-path target alerts during the ACAS-Enabled test period, with a standard deviation of 0.44 seconds (standard error = 0.06 seconds and number of subjects in this analysis = 60). *Id*. at 3-21.

90. In the 2002 Le Sabre ACAS FOT test vehicles the subject was observed being distracted in about 39 percent of the in-path target alert episodes. However, drivers were not distracted in slightly over 50 percent of the episodes. *Id*. at 3-21 and 22.

91. In the 2002 Le Sabre ACAS FOT test vehicles about 66 percent of the 47 distracted subjects reacted on average within 0.5 seconds of the alert, and 98 percent of the subjects reacted within 1 second of the alert. *Id*. at 3-22.

92. In the 2002 Le Sabre ACAS FOT test vehicles brake reaction time of a distracted driver averaged about 0.49 seconds per driver to in-path target alerts during the ACAS-Enabled test period, with a standard deviation of 0.39 seconds (standard error = 0.06 seconds and number of subjects in this analysis = 42). *Id.* at 3-23.

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93. In the 2002 Le Sabre ACAS FOT test vehicles the average brake reaction time to in-path target alerts by distracted drivers is lower than the overall average brake reaction time. *Id*.

94. In the 2002 Le Sabre ACAS FOT test vehicles' reaction time of a driver whose eyes were off the road averaged about 0.6 seconds per driver to in-path target alerts during the ACAS-Enabled test period, with a standard deviation of 0.46 seconds (standard error = 0.19 seconds and number of subjects in this analysis = 6). *Id.*

95. The FCW system with Algorithm C design that was used in the 2002 Le Sabre ACAS FOT testing between March 2003 and November 2004 provided benefits that outweigh the harmful characteristics and consequences of the design. See *Evaluation of an Automotive Rear-End Collision Avoidance System*, March 2006.

96. The ACC system that used Algorithm C design that was used in the 2002 Le Sabre ACAS FOT testing between March 2003 and November 2004 provided benefits that outweigh the harmful characteristics and consequences of the design. *Id*.

97. It was technologically feasible to install an FCW system, with the capabilities demonstrated by the FCW system used in the 2002 Le Sabre ACAS FOT test vehicles tested between March 2003 and November 2004, in 2009 Malibus.

98. It was financially feasible to install an FCW system, with the capabilities demonstrated by the FCW system used in the 2002 Le Sabre ACAS FOT test vehicles tested between March 2003 and November 2004, in 2009 Malibus.

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99. Prior to model year 2009 Toyota Motor Corporation was equipping some production Lexus cars with driver monitoring cameras that allowed Toyota to provide earlier than normal Forward Collision Warning alerts to distracted drivers.

100. The FCW system with Algorithm C design, that was used in the 2002 Le Sabre ACAS FOT testing between March 2003 and November 2004, is substantially similar to some of the FCW systems General Motors has installed in some of its production vehicles.

101. The FCW design used in the 2002 Le Sabres in the ACSA FOT testing was tested by General Motors regarding its capabilities in providing FCW alerts to drivers during a range of different approach speeds to slower moving vehicles traveling slower in the same lane as the FCW equipped Le Sabres.

102. The FCW design used in the 2002 Le Sabres in the ACSA FOT testing, if designed into and installed in the 2009 Malibu Andrew Ackert was riding in on March 27, 2012, would have given the driver of the 2009 Malibu an alert during the Malibu's approach to its impact with the horse trailer.

103. In November 2004 some General Motors employees knew of the actual performance of FCW systems with Algorithm C in the 2002 Le Sabres in the ACAS FOT testing that is reported in the *Evaluation of an Automotive Rear-End Collision Avoidance System*, March 2006. The *Evaluation of an Automotive Rear-End Collision Avoidance System*, March 2006 can be viewed here.

104. By December 2004 some General Motors employees were conscious of the risks of not installing an FCW system with Algorithm C, used in the 2002 Le Sabres in the ACAS FOT testing, in the subject 2009 Malibu.

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105. Some General Motors employees consciously disregarded the risk of not installing an FCW system in the 2009 Malibu.

106. In model year 2007 Ford of Europe installed Forward Collision Warning systems in some of its passenger vehicles.

107. In model year 2007 Mercedes Benz installed Forward Collision Warning systems in some of its production passenger vehicles.

108. In model year 2000 Mercedes Benz installed Forward Collision Warning systems in some of its production passenger vehicles.

109. Adaptive Cruise Control systems available to General Motors for use in model year 2009 passenger cars had the capability of recognizing and slowing a vehicle equipped with the available ACC systems in response to vehicles slowing and stopped in the lane ahead of the ACC equipped vehicle.

110. Adaptive Cruise Control with the capabilities of the ACC systems used in the 2002 Le Sabres used in the March 2003 to November 2004 ACAS FOT testing were technologically feasible for installation in model year 2009 Chevrolet Malibu passenger cars.

111. Adaptive Cruise Control with the capabilities of the ACC systems used in the 2002 Le Sabres used in the March 2003 to November 2004 ACAS FOT testing were financially feasible for installation in model year 2009 Chevrolet Malibu passenger cars.

112. The Adaptive Cruise Control system installed in the 2002 Le Sabres used in the March 2003 to November 2004 ACAS FOT testing, using Algorithm C, would have slowed an equipped vehicle from 71 mph when approaching a horse trailer slowing in the

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lane ahead of the ACC equipped vehicle if the ACC was activated, the roadway was level and straight and nothing was obstructing the ACC's sensing system components.

113. For model year 2009 passenger vehicles the performance of FCW, AEB and ACC could be enhanced by use of data supplied to those systems by a driver monitoring camera.

114. Driver monitoring cameras were in use in model 2008 production automobiles for purposes of adjusting the timing of forward collision warning alerts to drivers who are identified by the driver monitoring system as being distracted or potentially distracted.

4. The Collision

115. At approximately 9:00 on the morning of March 27, 2012, Andrew Ackert's mother, Lisa Ackert, was driving the Vehicle northbound on Ironwood Drive in Pinal County.

116. Andrew was in the front passenger seat.

117. The airbag system recognized that a child was in the front passenger seat and suppressed the airbag for that seating position related to the collision described herein.

118. Upon information and belief, the Ackert Malibu passenger airbag system used a single 2 stage airbag inflator that did not qualify as a low risk airbag inflation system under FMVSS 208.

119. At the location of the accident, Ironwood Drive was a divided four-lane highway, with two lanes in each direction, and divided by a dirt median.

120. This photograph shows Ironwood Drive at the location of the collision:

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121. Ms. Ackert was traveling northbound in the left lane as her 2009 Malibu approached the slowing horse trailer.

122. The lane between the Ackert Malibu and the slowing rear of the horse trailer was not occupied by any object during the 6 seconds before the Ackert Malibu collided into the rear of the horse trailer.

123. Ms. Ackert did not recognize the slowing horse trailer was becoming a collision risk for her Malibu before the collision between her Malibu and the horse trailer happened.

124. Ms. Ackert was in a condition to recognize and respond to an alert from a forward collision warning system, if one had been installed in the 2009 Malibu, during the 6 seconds before the Malibu collided into the rear of the horse trailer.

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125. The Dodge pulling the horse trailer slowed to make a left turn across the median.

126. Ms. Ackert did not see the Dodge or horse trailer beginning to slow.

127. The Ackert Malibu vehicle collided with the rear of the horse trailer without steering or braking being applied by the Malibu driver.

128. The SDM in the Ackert Malibu commanded a first stage deployment of the frontal airbags at 16 ms after time zero and a second stage deployment at 18 ms after time zero.

129. The Malibu's passenger side airbag did not deploy in its frontal collision with the slower moving horse trailer because the vehicle's Occupant Classification System suppressed the front passenger airbag deployment at algorithm enable for the collision.

130. The Ackert 2009 Malibu was not equipped with one of the technologically and financially feasible available low risk deployment front passenger airbag systems that were available for use in 2009 Malibu cars.

131. Among other injuries, Andrew suffered a lower cervical spine chance fracture at C6-C7, a subarachnoid brain hemorrhage, and complete cord syndrome causing paralysis and other permanently disabling injuries from the collision forces and the failure of there to be a front passenger airbag system deployment to restrain his body against the forces pulling his body forward relative to the structures of the Malibu.

132. If the Vehicle had been equipped with the forward collision warning, an alert would have sounded prior to the collision and Ms. Ackert would have been able to avoid the collision by braking and/or steering. At the very least, Ms. Ackert would have been able to

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engage in sufficient braking or steering to mitigate the severity of the collision to Andrew Ackert.

133. If the Vehicle had been equipped with Automatic Emergency Braking (in addition to Forward Collision Warning), braking or steering ordered or prompted by those systems would have, more likely than not, prevented the collision.

134. If the Vehicle had been equipped with Adaptive Cruise Control, that system's responses to the presence of the slowing horse trailer would have, more likely than not, prevented the collision between the Malibu and the horse trailer.

135. At the very least, the braking or steering, applied to the Vehicle by one of more of the ACC, FCW and/or AEB systems or Ms. Ackert, would have been sufficient to significantly mitigate the severity of the collision.

136. With installation of ACC, FCW or AEB, Andrew would not have sustained his severe and permanent injuries in this collision.

137. The front passenger airbag did not deploy in this collision and, as such, Andrew had no airbag occupant protection against the high severity frontal collision forces.

138. A Low Risk Airbag System would have provided effective airbag protection for Andrew in the high severity Malibu into the horse trailer collision without the attendant risks accompanying high-powered airbags and complied with governmental regulatory requirements.

139. If General Motors had designed the Vehicle with a Low Risk Airbag System that would have allowed deployment of the front passenger airbag in this collision, Andrew

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either would not have received any injuries in the collision or, at the very least, his injuries would have been significantly less and not permanent and/or incapacitating.

Claims For Relief

Count 1

Strict Liability – Design Defect

140. Plaintiffs incorporate the foregoing paragraphs as fully set forth herein.

141. Defendant General Motors is liable to Plaintiffs because of the defective and unreasonably dangerous design of the 2009 Chevrolet Malibu, specifically, General Motors' failure to install (1) technologically and financially feasible forward collision avoidance technologies, including but not limited to automatic emergency braking, collision imminent braking, forward collision warning and adaptive cruise control, and (2) a Low Risk Airbag System.

142. The benefits of a vehicle equipped with forward collision warning outweighs any harmful characteristics and/or consequences of a vehicle without such a system.

143. The benefits of a vehicle equipped with automatic emergency braking outweighs any harmful characteristics and/or consequences of a vehicle not so equipped.

144. The benefits of a vehicle equipped with a Low Risk Airbag System at the front passenger seating position outweighs any harmful characteristics and/or consequences of a vehicle not so equipped.

145. The Vehicle failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonable manner.

146. As a direct result of General Motors' unreasonably dangerous and defective design of the 2009 Chevrolet Malibu collision avoidance systems and/or front passenger airbag systems, Plaintiff Andrew Ackert sustained severe and permanent physical injuries.

147. In addition, Plaintiff Andrew Ackert has sustained economic losses, loss of income, emotional trauma, disfigurement, and loss of enjoyment of life.

Count 2

Negligence

148. Plaintiffs incorporate the foregoing paragraphs as fully set forth herein.

149. Defendant General Motors owed the consuming public and those encountering its vehicles a duty to design reasonably safe collision avoidance systems and front passenger airbag systems in its vehicles.

150. Defendant General Motors knew, or reasonably should have known, that (1) rear-end collisions kill and/or seriously injure hundreds of thousands of persons on United States roadways annually; and (2) that children or small adults in the passenger seat would benefit from the protection of a Low Risk Airbag System compared to a front passenger seat occupant protection system that suppresses the passenger airbag in high severity collisions where the occupant is much more likely to be protected by a passenger airbag deployment than hurt by it.

151. With this knowledge, Defendant General Motors breached its duty of care by failing to install forward collision warning, adaptive cruise control and/or automatic emergency braking on the 2009 Chevrolet Malibu.

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152. Defendant General Motors further breached its duty of care by failing to install a Low Risk Airbag System in its 2009 Chevrolet Malibu that would supply a passenger airbag deployment in high severity frontal collisions.

153. As a direct result of General Motors' negligent design of the 2009 Chevrolet Malibu's collision avoidance system and front passenger airbag systems, Plaintiff Andrew Ackert sustained severe and permanent physical injuries.

154. In addition, Plaintiff Andrew Ackert has sustained economic losses, loss of income, emotional trauma, and loss of enjoyment of life.

Prayer For Relief

WHEREFORE, Plaintiff prays for damages against Defendant General Motors LLC as follows:

1. For special damages in an amount to be proved at trial;

2. General and compensatory damages, including consequential economic losses, medical expenses, loss of income, emotional pain and suffering, loss of consortium, disfigurement, and loss of enjoyment of life, in an amount to be proved at trial;

3. For taxable costs and pre- and post-judgment interest to the extent permitted by law; and

4. For other relief as the Court deems just and proper.

Jury Demand

Plaintiffs respectfully request a trial by jury.

DATED this 22nd day of June, 2022.

SHUMWAY LAW PLLC

/s/ G Lynn Shumway
G. Lynn Shumway

and

GHELFI LAW GROUP PLLC
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